

REMARKS

This is in response to the Office Action mailed February 18, 2005, in which the Examiner allowed claims 15-18 and 23-33 rejected claims 1 and 10-14, and objected to claims 3 and 9.

Interview Summary

Applicants' representative, Brian D. Kaul, had a telephone interview with Examiner Paul Kim on April 15, 2005. During the interview, the rejections of claims 1 and 14 based on Das (U.S. Patent No. 5,075,956), were discussed. In particular, the relevance of the shield structure 76 of Das was discussed including how it is distinguishable from writing elements, including the writing element 61 of Das and the writing element to which the present invention is directed. Although no immediate resolution was reached, Applicant was encouraged to respond fully to the Office Action.

Claim Rejections - 35 U.S.C. §102

In Section 6 of the Office Action, the Examiner rejected claims 1, 10-12 and 14 under 35 U.S.C. §102(b) as being anticipated by Das (U.S. Patent No. 5,075,956). Applicant respectfully disagrees with the Examiner's assessment of Das, which was substantially identical to that presented in the Office Action of September 1, 2004. In particular, Applicant disagrees with the Examiner's finding that element 76 of FIG. 24a of Das discloses the step of "forming a writing pole portion on the ramped step having a top portion overlaying a beveled portion", as described in claim 1.

As explained in Applicant's response to the Office Action of September 1, 2004, the present invention is directed to a method of forming a perpendicular writing element. As discussed

in the present application, and as understood by those skilled in the art, the main or writing pole (144) of a perpendicular writing element (134) is configured to write data to a recording medium (132) in accordance with conventional perpendicular data writing techniques (page 7, line 11 through page 8, line 17; FIGS. 2 and 3). This writing process is made possible by the small cross-sectional shape of the pole tip (154) of the writing pole portion, shown in FIG. 3, which acts to concentrate the magnetic field through the pole tip and into the recording medium. Such a perpendicular writing function is not performed by the return pole (140), or magnetic shields (140, 142) of the magnetic head, shown in FIGS. 2 and 3, due to their large cross-sectional areas. This is necessary to prevent writing over the data written by the writing pole.

The perpendicular writing element of the present invention includes a beveled writing pole 180 having a bevel 220 that extends to the writing pole tip 182, as shown in FIG. 4. This configuration allows for a large amount of magnetic material to be maintained in close proximity to the writing pole tip 182 to thereby increase the magnitude of the magnetic field that can be conducted therethrough (page 10, lines 1-18).

Claim 1 of the present invention is directed to the method of forming the beveled writing pole 180 of a perpendicular writing element 192 as formed in accordance with the method of claim 1. In the method, a ramped step 228 is formed and a writing pole portion 273 is formed on the ramped step 228, as shown in FIG. 11.3. The writing pole portion includes a tip portion 208 overlaying a beveled portion 210, shown in FIGS. 4 and 11.3. Finally, a pole tip 182 (FIGS. 4, 5 and 11.4 and 11.5) of the writing pole portion is formed having an air bearing surface 216 (FIG. 4).

Rather than relating to a writing pole, the element 76 of Das forms a "lower section 34b of shield 34" [col. 7, line 67

- col. 8, line 1]. Nowhere in Das is there any disclosure of layer 76 being a writing pole of a perpendicular writing element that performs writing operations, something only the probe 61 of Das operates to do [col. 7, lines 20-32]. As understood by those skilled in the art, magnetic shields, such as the lower shield 34b (layer 76) of Das and return poles 188 of the present invention, operate to form a return path through which magnetic flux is conducted, but in a manner that does not affect the stored information on the media [see col. 6, lines 45-48 and col. 9, lines 31-33 of Das]. As a result, such shields are not writing poles. Accordingly, the shield 76 of Das is unrelated to a beveled writing pole of a perpendicular writing element and, thus, is unrelated to the method of claim 1.

Additionally, Das actually teaches away from the writing pole or the method of forming a writing pole of the present invention. For example, the writing pole of Das (probe P and probe 61) does not include a bevel, as shown in FIG. 16c. Furthermore, Das fails to provide any disclosure that the formation of the probe P or 61 is formed in accordance with any of the steps of claim 1.

Therefore, Applicant submits that Das fails to anticipate independent claim 1, and requests that the rejection be withdrawn. Additionally, Applicant submits that claims 10-12 and 14 are allowable as being dependent from allowable base claim 1, and requests that the rejections be withdrawn.

Claim Rejection - 35 U.S.C. §103

In Section 8 of the Office Action, the Examiner rejected claim 13 under 35 U.S.C. §103(a) as being unpatentable over Das. As set forth above, Applicant believes that claim 1 is presently in condition for allowance. Accordingly, Applicant submits that claim 13 is allowable as being dependent from

allowable base claim 1, and requests that the rejection be withdrawn.

Request For Non-Final Office Action

Should the Examiner maintain the rejection of independent claim 1 based on Das, Applicant requests that the Examiner not make the rejection final and provide an explanation as to why Applicant's argument is not persuasive. Although Applicant presented substantially the same argument provided above in response to the Examiner's rejection of claim 1 based on Das in the Office Action of September 1, 2004, the Examiner failed to address any of Applicant's arguments. Instead, the Examiner merely states that "Applicant's arguments with respect to claims 1, 3, 9-18, 23-33 have been considered but are moot in view of the new ground of rejection" even though there were no new grounds for rejecting at least claim 1. Accordingly, Applicant has yet to be informed of the reasons for which the argument presented herein and in response to the Office Action of September 1, 2004 is not persuasive. Such feedback is necessary to expedite the prosecution of the case.

Applicant should be provided at least one opportunity to respond to the grounds the Examiner may have as to why Applicant's argument is not persuasive. If the Examiner responds to this response with an explanation, for the first time, as to why Applicant's arguments are not persuasive and makes the rejection final, Applicant would lose the right to amend the claims. Applicant should be given at least one opportunity to amend the claims in light of any grounds cited by the Examiner as to why an argument is not persuasive.

Additionally, should the Examiner conclude that Das anticipates independent claim 1, Applicant requests that the Examiner identify with particularity the elements of the

recording head of Das that correspond to the claimed top portion, beveled portion, and pole tip.

Allowable Subject Matter

In Section 9 of the Office Action, the Examiner objected to claims 3 and 9, but indicated that they would be allowable if rewritten in independent form. However, in light of the discussion above, Applicant submits that claims 3 and 9 are presently in condition for allowance as being dependent from an allowable base claim, and requests that the objections be withdrawn.

In Section 10 of the Office Action, the Examiner indicated at claims 15-18 and 23-33 were allowed.

Conclusion

In view of the above comments and remarks, Applicants submit that the present application is in condition for allowance. Reconsideration and favorable action is respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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